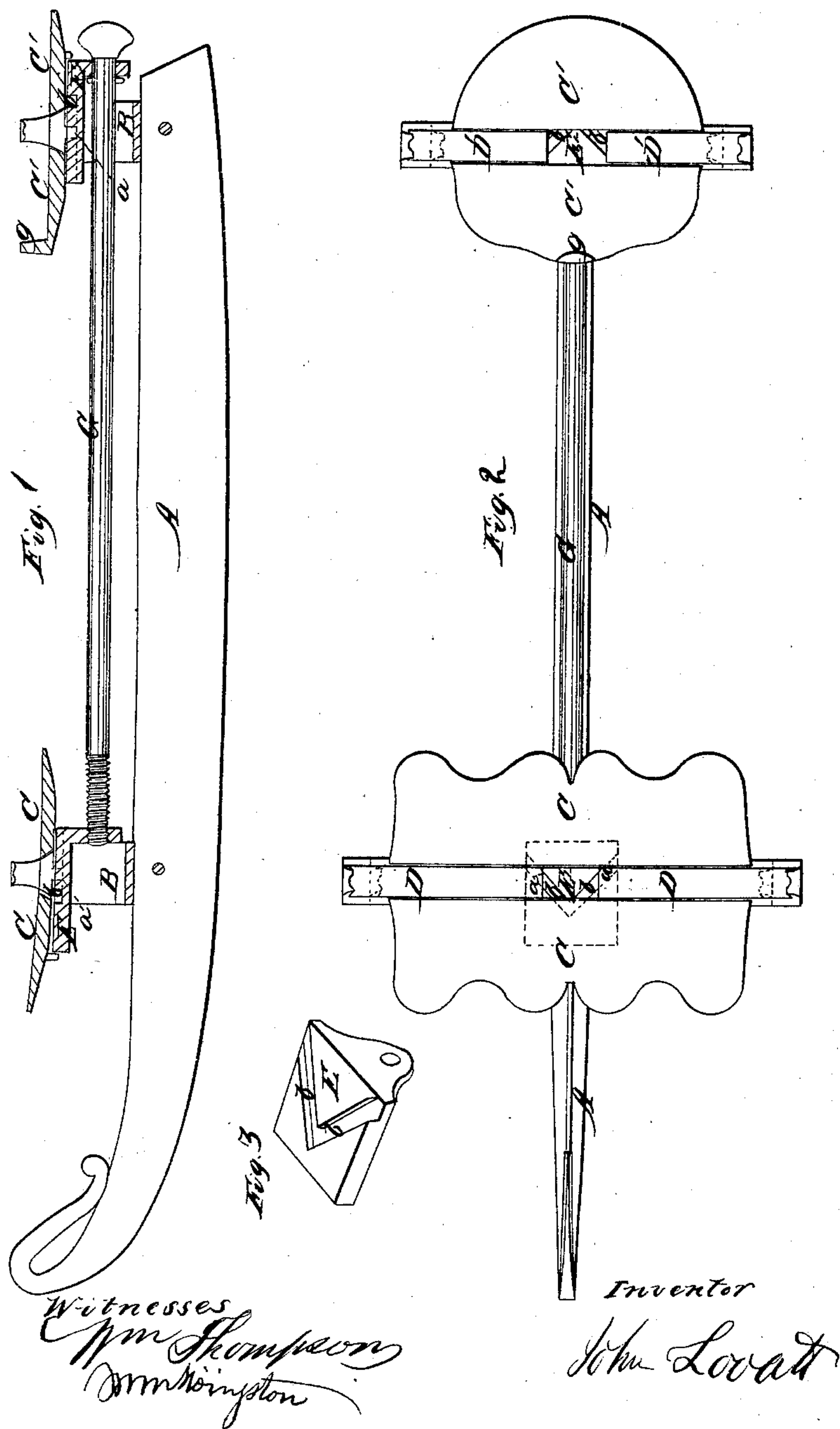


J. Lovatt,
Skate Attachment,
No 28,495, Patented May 29, 1860.



UNITED STATES PATENT OFFICE.

JOHN LOVATT, OF NEWARK, NEW JERSEY.

SKATE.

Specification forming part of Letters Patent No. 28,495, dated May 29, 1860; Reissued November 10, 1868, No. 3,186.

To all whom it may concern:

Be it known that I, JOHN LOVATT, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Clamping Skates to Boots or Shoes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a longitudinal vertical section, taken through the heel and sole plates, showing the screw rod and movable pieces for adjusting the clamps to the sole of the boot. Fig. 2 is a top view of the skate, showing the four clamps, and the movable slotted blocks in two positions. Fig. 3 is a perspective view of one of the slotted blocks detached from the foot stand of the skate.

Similar letters of reference indicate corresponding parts in the three figures.

To enable those skilled in the art to fully understand my invention I will proceed to describe its construction and operation.

In the drawings, A represents the runner or skate-iron, of any suitable shape, to which is secured by rivets or screws two standards B, B, which support the heel and sole plates C, C', and to which the heel and sole plates are secured. These plates are of a sufficient length and width to give a firm and steady bearing for the feet.

D, D, D', D' are the clamp bars which have their edges beveled down so that they will fit in suitable slots, made to receive them, in the plates C, C'. Their ends are turned up and slightly over and made sharp, so that they will serve as jaws which will sink into the edges of the leather sole and heel and grip it firmly. The inner ends of these clamping jaws have pins *a, a*, shown in dotted lines, Fig. 1, projecting down from them into slots *b*, in blocks E, E', Fig. 3. These blocks are placed under the sole and heel plates C, C', and in the middle of the same, and are suitably held to these plates between guides, which only allow them to have a longitudinal movement.

The grooves *b*, are cut into the faces of the blocks E, E', in a wedge or V-shape, the

angles of which are contrary to each other in arrangement in their bearings so that a rod G, having a screw-thread cut on its front end and tapped through a projecting lip of the block E, and passing loosely through a similar projecting lip on block E', can be made by screwing it up so as to move the blocks toward each other, to contract the four jaws, the two front ones first and then the two hind jaws.

The screw rod G, extends longitudinally over the skate iron, works loosely in the lip of the heel block E, and is tapped with a screw thread through the lip of block E, as above described; it has a thumb piece on its rear end, which is entirely out of the way in skating, but is very conveniently operated to tighten or loosen the clamps.

Now it will be seen from this description that the power to be obtained by the V-shaped slots in blocks E, E', to act directly on the clamping jaws is very great, it is a combination of screw and wedge, and as the blocks E, E', are made to approach each other in screwing up the rod G, the clamps D, D, D', D', contract laterally until they securely grip the sole of the boot, then the heel clamps begin to move and they grip the heel with equal security so as to require no other fastening for the skate. The lug *g*, projecting up from the front of the heel plate is merely to prevent the foot from slipping forward. The pin *h*, on the rod G, inside of the lip of the heel block E', serves to return the parts back when the rod G, is unscrewed so as to disengage the skates from the feet.

I do not claim broadly the moving of clamps in skates by adjusting screws, but:—

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is:—

The combination of the movable V-slotted blocks E, E', with the clamps D, D, D', D', and the screw rod G, when the same are arranged substantially in the manner and for the purposes herein set forth.

JOHN LOVATT.

Witnesses:

WM. THOMPSON,
M. M. LIVINGSTON.